

0590
1210

#2 OIPE

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/990,578

DATE: 11/28/2001

TIME: 10:36:26

Input Set : A:\TAMK232.ST25.txt

Output Set: N:\CRF3\11212001\I990578.raw

ENTERED

3 <110> APPLICANT: McKeehan, Wallace L.
 4 Luo, Yongde
 6 <120> TITLE OF INVENTION: FGF-Affinity Chromatography
 8 <130> FILE REFERENCE: 12740.0232.NPUS00 TAMK:232
 C--> 10 <140> CURRENT APPLICATION NUMBER: US/09/990,578
 C--> 10 <141> CURRENT FILING DATE: 2001-11-21
 10 <150> PRIOR APPLICATION NUMBER: US 60/325,613
 11 <151> PRIOR FILING DATE: 2001-09-28
 13 <150> PRIOR APPLICATION NUMBER: US 60/325,502
 14 <151> PRIOR FILING DATE: 2001-08-28
 16 <150> PRIOR APPLICATION NUMBER: US 60/277,735
 17 <151> PRIOR FILING DATE: 2001-03-21
 19 <150> PRIOR APPLICATION NUMBER: US 60/252,225
 20 <151> PRIOR FILING DATE: 2000-11-21
 22 <160> NUMBER OF SEQ ID NOS: 4
 24 <170> SOFTWARE: PatentIn version 3.1
 26 <210> SEQ ID NO: 1
 27 <211> LENGTH: 693
 28 <212> TYPE: DNA
 29 <213> ORGANISM: FGF7 from Rat
 31 <220> FEATURE:
 32 <221> NAME/KEY: CDS
 33 <222> LOCATION: (109)..(693)
 34 <223> OTHER INFORMATION: Full length DNA sequence for FGF7
 36 <400> SEQUENCE: 1
 37 caatctacaa ttcacagata ggaggaggcc catgacctag gagtagcgat caactcaagg 60
 39 tccagttctc attatgttat tcatggacac ccggggcact gctctata atg cgc aaa 117
 40 Met Arg Lys
 41 1
 43 tgg ata ctg aca cgg atc ctg ccg act ccg ctc tac aga ccg tgc ttc 165
 44 Trp Ile Leu Thr Arg Ile Leu Pro Thr Pro Leu Tyr Arg Pro Cys Phe
 45 5 10 15
 47 cac ctc gtc tgt ctt gtg ggc acc ata tct tta gct tgc aat gac atg 213
 48 His Leu Val Cys Leu Val Gly Thr Ile Ser Leu Ala Cys Asn Asp Met
 49 20 25 30 35
 51 agt cca gag cag acg gcc acg agc gtg aac tgt tct agc ccc gag cga 261
 52 Ser Pro Glu Gln Thr Ala Thr Ser Val Asn Cys Ser Ser Pro Glu Arg
 53 40 45 50
 55 cac acg aga agt tat gac tac atg gaa gga ggg gat ata agg gtg agg 309
 56 His Thr Arg Ser Tyr Asp Tyr Met Glu Gly Gly Asp Ile Arg Val Arg
 57 55 60 65
 59 aga ctg ttc tgt cgc acc cag tgg tac ctg agg att gac aaa cga ggc 357
 60 Arg Leu Phe Cys Arg Thr Gln Trp Tyr Leu Arg Ile Asp Lys Arg Gly
 61 70 75 80
 63 aaa gtg aaa ggg acc cag gag atg agg aac agc tac aac atc atg gaa 405
 64 Lys Val Lys Gly Thr Gln Glu Met Arg Asn Ser Tyr Asn Ile Met Glu
 65 85 90 95

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/990,578

DATE: 11/28/2001
TIME: 10:36:26

Input Set : A:\TAMK232.ST25.txt

Output Set: N:\CRF3\11212001\I990578.raw

```

67 atc atg act gtg gca gtt gga att gtg gca atc aaa ggg gtg gaa agt      453
68 Ile Met Thr Val Ala Val Gly Ile Val Ala Ile Lys Gly Val Glu Ser
69 100                               105                               110                               115
71 gaa tac tat ctt gcc atg aac aaa caa ggg gaa ctc tat gca aag aaa
72 Glu Tyr Tyr Leu Ala Met Asn Lys Gln Gly Glu Leu Tyr Ala Lys Lys      501
73                               120                               125                               130
75 gaa tgc aat gag gat tgc aac ttc aaa gaa ctg att ctg gaa aac cat
76 Glu Cys Asn Glu Asp Cys Asn Phe Lys Glu Leu Ile Leu Glu Asn His      549
77                               135                               140                               145
79 tac aac acc tct gca tca gct aaa tgg aca cac agc gga ggg gaa atg
80 Tyr Asn Thr Ser Ala Ser Ala Lys Trp Thr His Ser Gly Gly Glu Met      597
81                               150                               155                               160
83 ttc gtg gcc tta aat caa aag ggg ctt cct gtc aaa ggg aag aaa acg
84 Phe Val Ala Leu Asn Gln Lys Gly Leu Pro Val Lys Gly Lys Lys Thr      645
85                               165                               170                               175
87 aag aaa gaa caa aaa acg gcc cac ttt ctt cct atg gca ata act taa
88 Lys Lys Glu Gln Lys Thr Ala His Phe Leu Pro Met Ala Ile Thr      693
89 180                               185                               190
92 <210> SEQ ID NO: 2
93 <211> LENGTH: 194
94 <212> TYPE: PRT
95 <213> ORGANISM: FGF7 from Rat
97 <400> SEQUENCE: 2
99 Met Arg Lys Trp Ile Leu Thr Arg Ile Leu Pro Thr Pro Leu Tyr Arg
100 1                               5                               10                               15
102 Pro Cys Phe His Leu Val Cys Leu Val Gly Thr Ile Ser Leu Ala Cys
103                               20                               25                               30
105 Asn Asp Met Ser Pro Glu Gln Thr Ala Thr Ser Val Asn Cys Ser Ser
106                               35                               40                               45
108 Pro Glu Arg His Thr Arg Ser Tyr Asp Tyr Met Glu Gly Gly Asp Ile
109                               50                               55                               60
111 Arg Val Arg Arg Leu Phe Cys Arg Thr Gln Trp Tyr Leu Arg Ile Asp
112 65                               70                               75                               80
114 Lys Arg Gly Lys Val Lys Gly Thr Gln Glu Met Arg Asn Ser Tyr Asn
115                               85                               90                               95
117 Ile Met Glu Ile Met Thr Val Ala Val Gly Ile Val Ala Ile Lys Gly
118                               100                              105                              110
120 Val Glu Ser Glu Tyr Tyr Leu Ala Met Asn Lys Gln Gly Glu Leu Tyr
121                               115                              120                              125
123 Ala Lys Lys Glu Cys Asn Glu Asp Cys Asn Phe Lys Glu Leu Ile Leu
124                               130                              135                              140
126 Glu Asn His Tyr Asn Thr Ser Ala Ser Ala Lys Trp Thr His Ser Gly
127 145                               150                              155                              160
129 Gly Glu Met Phe Val Ala Leu Asn Gln Lys Gly Leu Pro Val Lys Gly
130                               165                              170                              175
132 Lys Lys Thr Lys Lys Glu Gln Lys Thr Ala His Phe Leu Pro Met Ala
133                               180                              185                              190
135 Ile Thr
138 <210> SEQ ID NO: 3

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/990,578

DATE: 11/28/2001

TIME: 10:36:26

Input Set : A:\TAMK232.ST25.txt

Output Set: N:\CRF3\11212001\I990578.raw

```

139 <211> LENGTH: 1182
140 <212> TYPE: DNA
141 <213> ORGANISM: Artificial Sequence
143 <220> FEATURE:
144 <223> OTHER INFORMATION: Synthetic
146 <220> FEATURE:
147 <221> NAME/KEY: CDS
148 <222> LOCATION: (1)..(1182)
149 <223> OTHER INFORMATION: Fusion protein GST-FGF7
151 <400> SEQUENCE: 3
152 atg tcc cct ata cta ggt tat tgg aaa att aag ggc ctt gtg caa ccc      48
153 Met Ser Pro Ile Leu Gly Tyr Trp Lys Ile Lys Gly Leu Val Gln Pro
154 1 5 10 15
156 act cga ctt ctt ttg gaa tat ctt gaa gaa aaa tat gaa gag cat ttg      96
157 Thr Arg Leu Leu Leu Glu Tyr Leu Glu Lys Tyr Glu Glu His Leu
158 20 25 30
160 tat gag cgc gat gaa ggt gat aaa tgg cga aac aaa aag ttt gaa ttg      144
161 Tyr Glu Arg Asp Glu Gly Asp Lys Trp Arg Asn Lys Lys Phe Glu Leu
162 35 40 45
164 ggt ttg gag ttt ccc aat ctt cct tat tat att gat ggt gat gtt aaa      192
165 Gly Leu Glu Phe Pro Asn Leu Pro Tyr Tyr Ile Asp Gly Asp Val Lys
166 50 55 60
168 tta aca cag tct atg gcc atc ata cgt tat ata gct gac aag cac aac      240
169 Leu Thr Gln Ser Met Ala Ile Ile Arg Tyr Ile Ala Asp Lys His Asn
170 65 70 75 80
172 atg ttg ggt ggt tgt cca aaa gag cgt gca gag att tca atg ctt gaa      288
173 Met Leu Gly Gly Cys Pro Lys Glu Arg Ala Glu Ile Ser Met Leu Glu
174 85 90 95
176 gga gcg gtt ttg gat att aga tac ggt gtt tcg aga att gca tat agt      336
177 Gly Ala Val Leu Asp Ile Arg Tyr Gly Val Ser Arg Ile Ala Tyr Ser
178 100 105 110
180 aaa gac ttt gaa act ctc aaa gtt gat ttt ctt agc aag cta cct gaa      384
181 Lys Asp Phe Glu Thr Leu Lys Val Asp Phe Leu Ser Lys Leu Pro Glu
182 115 120 125
184 atg ctg aaa atg ttc gaa gat cgt tta tgt cat aaa aca tat tta aat      432
185 Met Leu Lys Met Phe Glu Asp Arg Leu Cys His Lys Thr Tyr Leu Asn
186 130 135 140
188 ggt gat cat gta acc cat cct gac ttc atg ttg tat gac gct ctt gat      480
189 Gly Asp His Val Thr His Pro Asp Phe Met Leu Tyr Asp Ala Leu Asp
190 145 150 155 160
192 gtt gtt tta tac atg gac cca atg tgc ctg gat gcg ttc cca aaa tta      528
193 Val Val Leu Tyr Met Asp Pro Met Cys Leu Asp Ala Phe Pro Lys Leu
194 165 170 175
196 gtt tgt ttt aaa aaa cgt att gaa gct atc cca caa att gat aag tac      576
197 Val Cys Phe Lys Lys Arg Ile Glu Ala Ile Pro Gln Ile Asp Lys Tyr
198 180 185 190
200 ttg aaa tcc agc aag tat ata gca tgg cct ttg cag ggc tgg caa gcc      624
201 Leu Lys Ser Ser Lys Tyr Ile Ala Trp Pro Leu Gln Gly Trp Gln Ala
202 195 200 205

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/990,578

DATE: 11/28/2001

TIME: 10:36:26

Input Set : A:\TAMK232.ST25.txt

Output Set: N:\CRF3\11212001\I990578.raw

```

204 acg ttt ggt ggt ggc gac cat cct cca aaa tcg gat ctg gtt ccg cgt
205 Thr Phe Gly Gly Gly Asp His Pro Pro Lys Ser Asp Leu Val Pro Arg 672
206 210 215 220
208 gga tcc ccg cgg gaa ttc gct tgc aat gac atg agt cca gag cag acg
209 Gly Ser Pro Arg Glu Phe Ala Cys Asn Asp Met Ser Pro Glu Gln Thr 720
210 225 230 235 240
212 gcc acg agc gtg aac tgt tct agc ccc gag cga cac acg aga agt tat
213 Ala Thr Ser Val Asn Cys Ser Ser Pro Glu Arg His Thr Arg Ser Tyr 768
214 245 250 255
216 gac tac atg gaa gga ggg gat ata agg gtg agg aga ctg ttc tgt cgc
217 Asp Tyr Met Glu Gly Gly Asp Ile Arg Val Arg Arg Leu Phe Cys Arg 816
218 260 265 270
220 acc cag tgg tac ctg agg att gac aaa cga ggc aaa gtg aaa ggg acc
221 Thr Gln Trp Tyr Leu Arg Ile Asp Lys Arg Gly Lys Val Lys Gly Thr 864
222 275 280 285
224 cag gag atg agg aac agc tac aac atc atg gaa atc atg act gtg gca
225 Gln Glu Met Arg Asn Ser Tyr Asn Ile Met Glu Ile Met Thr Val Ala 912
226 290 295 300
228 gtt gga att gtg gca atc aaa ggg gtg gaa agt gaa tac tat ctt gcc
229 Val Gly Ile Val Ala Ile Lys Gly Val Glu Ser Glu Tyr Tyr Leu Ala 960
230 305 310 315 320
232 atg aac aaa caa ggg gaa ctc tat gca aag aaa gaa tgc aat gag gat
233 Met Asn Lys Gln Gly Glu Leu Tyr Ala Lys Lys Glu Cys Asn Glu Asp 1008
234 325 330 335
236 tgc aac ttc aaa gaa ctg att ctg gaa aac cat tac aac acc tct gca
237 Cys Asn Phe Lys Glu Leu Ile Leu Glu Asn His Tyr Asn Thr Ser Ala 1056
238 340 345 350
240 tca gct aaa tgg aca cac agc gga ggg gaa atg ttc gtg gcc tta aat
241 Ser Ala Lys Trp Thr His Ser Gly Gly Glu Met Phe Val Ala Leu Asn 1104
242 355 360 365
244 caa aag ggg ctt cct gtc aaa ggg aag aaa acg aag aaa gaa caa aaa
245 Gln Lys Gly Leu Pro Val Lys Gly Lys Lys Thr Lys Lys Glu Gln Lys 1152
246 370 375 380
248 acg gcc cac ttt ctt cct atg gca ata act
249 Thr Ala His Phe Leu Pro Met Ala Ile Thr 1182
250 385 390
252 <210> SEQ ID NO: 4
253 <211> LENGTH: 394
254 <212> TYPE: PRT
255 <213> ORGANISM: Artificial Sequence
W--> 256 <220> FEATURE:
257 <223> OTHER INFORMATION: Synthetic
259 <400> SEQUENCE: 4
261 Met Ser Pro Ile Leu Gly Tyr Trp Lys Ile Lys Gly Leu Val Gln Pro
262 1 5 10 15
264 Thr Arg Leu Leu Leu Glu Tyr Leu Glu Glu Lys Tyr Glu Glu His Leu
265 20 25 30
267 Tyr Glu Arg Asp Glu Gly Asp Lys Trp Arg Asn Lys Lys Phe Glu Leu
268 35 40 45

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/990,578

DATE: 11/28/2001

TIME: 10:36:26

Input Set : A:\TAMK232.ST25.txt

Output Set: N:\CRF3\11212001\I990578.raw

270 Gly Leu Glu Phe Pro Asn Leu Pro Tyr Tyr Ile Asp Gly Asp Val Lys
 271 50 55 60
 273 Leu Thr Gln Ser Met Ala Ile Ile Arg Tyr Ile Ala Asp Lys His Asn
 274 65 70 75 80
 276 Met Leu Gly Gly Cys Pro Lys Glu Arg Ala Glu Ile Ser Met Leu Glu
 277 85 90 95
 279 Gly Ala Val Leu Asp Ile Arg Tyr Gly Val Ser Arg Ile Ala Tyr Ser
 280 100 105 110
 282 Lys Asp Phe Glu Thr Leu Lys Val Asp Phe Leu Ser Lys Leu Pro Glu
 283 115 120 125
 285 Met Leu Lys Met Phe Glu Asp Arg Leu Cys His Lys Thr Tyr Leu Asn
 286 130 135 140
 288 Gly Asp His Val Thr His Pro Asp Phe Met Leu Tyr Asp Ala Leu Asp
 289 145 150 155 160
 291 Val Val Leu Tyr Met Asp Pro Met Cys Leu Asp Ala Phe Pro Lys Leu
 292 165 170 175
 294 Val Cys Phe Lys Lys Arg Ile Glu Ala Ile Pro Gln Ile Asp Lys Tyr
 295 180 185 190
 297 Leu Lys Ser Ser Lys Tyr Ile Ala Trp Pro Leu Gln Gly Trp Gln Ala
 298 195 200 205
 300 Thr Phe Gly Gly Gly Asp His Pro Pro Lys Ser Asp Leu Val Pro Arg
 301 210 215 220
 303 Gly Ser Pro Arg Glu Phe Ala Cys Asn Asp Met Ser Pro Glu Gln Thr
 304 225 230 235 240
 306 Ala Thr Ser Val Asn Cys Ser Ser Pro Glu Arg His Thr Arg Ser Tyr
 307 245 250 255
 309 Asp Tyr Met Glu Gly Gly Asp Ile Arg Val Arg Arg Leu Phe Cys Arg
 310 260 265 270
 312 Thr Gln Trp Tyr Leu Arg Ile Asp Lys Arg Gly Lys Val Lys Gly Thr
 313 275 280 285
 315 Gln Glu Met Arg Asn Ser Tyr Asn Ile Met Glu Ile Met Thr Val Ala
 316 290 295 300
 318 Val Gly Ile Val Ala Ile Lys Gly Val Glu Ser Glu Tyr Tyr Leu Ala
 319 305 310 315 320
 321 Met Asn Lys Gln Gly Glu Leu Tyr Ala Lys Lys Glu Cys Asn Glu Asp
 322 325 330 335
 324 Cys Asn Phe Lys Glu Leu Ile Leu Glu Asn His Tyr Asn Thr Ser Ala
 325 340 345 350
 327 Ser Ala Lys Trp Thr His Ser Gly Gly Glu Met Phe Val Ala Leu Asn
 328 355 360 365
 330 Gln Lys Gly Leu Pro Val Lys Gly Lys Lys Thr Lys Lys Glu Gln Lys
 331 370 375 380
 333 Thr Ala His Phe Leu Pro Met Ala Ile Thr
 334 385 390

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/990,578

DATE: 11/28/2001

TIME: 10:36:27

Input Set : A:\TAMK232.ST25.txt

Output Set: N:\CRF3\11212001\I990578.raw

L:10 M:270 C: Current Application Number differs, Replaced Current Application No
L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:256 M:283 W: Missing Blank Line separator, <220> field identifier